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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,287	08/04/2006	Yoshiro Fujino	052363-0035	5414
20277 7590 11/17/2009 MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			EXAMINER YEE, DEBORAH	
			ART UNIT 1793	PAPER NUMBER
			MAIL DATE 11/17/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/588,287	Applicant(s) FUJINO ET AL.	
	Examiner Deborah Yee	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5 and 8-18 is/are pending in the application.
- 4a) Of the above claim(s) 11-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,8-10 and 14-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 11 to 13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 9, 2008.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, 8, 10 and 14 to 18 are rejected under 35 U.S.C. 103 (a) as being unpatentable over R & D Kobe Steel Technical Report ("Publication 1") in view of Hiroshi Suzuki, ed., Plastic Processing ("Publication 2) and further in view computer-generated English translation of Japanese patent 2003-213372 ("JP-372") for the reasons set forth in the previous office action dated July 10, 2009.

3. The Developed Steel in Table 1 of Publication 1 discloses a method of making a quenched tempered steel wire exhibiting a 1,000 MPa or higher shear yield stress base on publication 2, and uses a composition that meets Applicant's recited claim with 1.93% Si but contains 0.85% Mn which is slightly higher than the claimed Mn range of 0.1 to 0.7%. Nevertheless, Applicant's composition is conventionally known in the art for making quench tempered steel wire as evident by the quenched tempered steel wire composition containing 1-3% Si and 0.5-1.5%Mn taught by JP-372. Therefore it would

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be well within the skill of the artisan to modify the teaching of publication 1 by using slightly different, but analogous materials known in the art, such as taught by JP-372.

Response to Arguments

4. Applicant's arguments filed October 8, 2009 have been fully considered but they are not persuasive.

5. Applicant argued that it would not have been obvious to make wire from a steel composition having high silicon content (Si: 1.8% or higher) and low manganese content (Mn: 0.7% or lower). The steel wire of JP-372 discloses Si and Mn contents of 1-3% and 0.5-1.5%, respectively. However, at the time of the effective filing date of the present application it was common technical knowledge for the artisan that it is better to increase the Mn content along with an increase in Si content. This also evidenced from the steel composition of publication 1 (Si:1.93%, Mn:0.85%), and steel compositions shown in table 1 of JP-372 (Sample Steel B; Si: 1.94% and Mn:0.75%) and Sample Steel C; Si: 1.85% and Mn:0.85%. Accordingly, it would not have been obvious to modify the Si and Mn contents of the steel wires in the cited references to arrive at the claimed high silicon content (Si:1.8-2.7%) and low manganese content (Mn: 0.1-0.7%). Further, it was unknown at the time of the effective filing date, that a steel wire having a high Si and low Mn content would have mechanical property nearly equal to that of conventionally known steel wires having high Si and high Mn content.

6. In response to argument, Examiner maintains her position that it would be obvious for one skilled in the art to modify the teaching of publication 1 by using slightly

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different, but analogous materials known in the art, such as taught by JP-372 to publication 1 process.

7. Applicant's statement that it would not be obvious to modify publication 1 because it is common technical knowledge that it is better to increase the Mn content along with an increase in Si in a steel wire alloy composition has been acknowledge but this is merely Applicant's statement with no convincing evidence. Applicant refers to JP-372 teaching specific examples with high Si and high Mn but JP-372 teaches a general steel composition containing 1 to 3% Si with 0.5 to 1.5% Mn which would include high Si content and low Mn content, such as exemplified by Steel B; Si: 1.94% and Mn: 0.75% whereby 0.75% Mn content closely approximates 0.70% recited by Applicant's claim. Also Examiner has cited U.S. patent 6,338,763 and Japanese patent 2003-306747 to further show that it is common practice to use steel having high Si and low Mn to make quenched tempered steel wire.

8. For the foregoing reasons, claims would not patentably distinguish over prior art.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on monday-friday 6:00 am-2:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Deborah Yee/
Primary Examiner
Art Unit 1793

/DY/